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| 09/521,186      | 03/08/2000  | Dannie C. Lau        | PHAT-1002US0 BBM    | 1788             |

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05/19/2004

Burt Magen Esq  
Vierra Magen Marcus Harmon & DeNiro LLP  
685 Market Street Suite 540  
San Francisco, CA 94105

EXAMINER

PENDLETON, BRIAN T.

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 05/19/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/521,186

Applicant(s)

LAU ET AL.

Examiner

Brian T. Pendleton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-13,15,16,18,19,27,28,32,33 and 35-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13,15,16,18,19,27,28,32,33 and 35-37 is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,38-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Applicant's arguments with respect to claims 1-12 and 38-41 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of Burks. Divon et al teach a system comprising a dock 28 connected to a computer 16 which is a music storage device (see column 5 lines 61-67), an audio head 14 which is connected to vehicle speakers, a removable hard disk 10 which is removably connected to the dock 28 via link 26 and the audio head unit 14. Divon et al teach that the disk 10 stores audio files downloaded from the computer 16. Divon et al do not teach that the audio files are organized by play lists and a control panel of the audio head includes a play list selection device for selecting and playing a play list. Burks taught a system and method for processing audio data comprising a memory 29 which stores a plurality of audio data files 52, a compression application 54, decompression application 56, system manager 26, network 48 and storage medium (CD) 23. Audio data files 52 are downloaded to the storage medium 23 upon request. Along with the audio data files 52, a decompression application 56 and organizational structure information 59 which contains a play list are also downloaded. Play lists were

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advantageous because the user was given the ability to select his/her preferred songs to be put on the storage medium 23. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include play lists, per the teachings of Burks, on the hard disk 10 of Divon et al. Furthermore, the hard disk 10 comprises a processor 54 (figure 2a) for managing its operation (see column 8 lines 23-37). The modified Divon et al invention would include the play list among the data downloaded into the memory 56. The processor would use the play list to retrieve audio files to be played, thereby meeting the limitation of the head unit including a control panel, the control panel includes a play list selection device. Once the hard disk 10 is inserted into the audio head unit, the head unit is controlled by the remote controller 18. Claims 1 and 42 are met. As to claim 2, it was obvious to have a hard disk drive connector to connect the hard disk 10 to the audio head unit 14. Regarding claim 3, the hard disk 10 stores compressed music data files in memory 56 received from the computer 16 and the audio head unit accesses the compressed music data files. Per claim 4, the combination of Divon and Burk do not disclose that the audio head unit includes a switch for detecting whether the disk 10 is connected to the audio head unit and preventing the audio head from operating if disk 10 is not connected. However, Examiner takes Official Notice that automatically disconnecting an audio system if a storage medium is not connected to it was well known in art at the time of invention. Radio tuners in vehicles have been known to activate when a compact disc is inserted into the audio head unit (even when the device is in an OFF mode) and deactivate when the disc is taken out. One of ordinary skill in the art would have known this feature and

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incorporated it in the combination. As to claim 6, inherently the audio head unit contains a processor. Burks taught having an operating system downloaded onto the storage medium. The benefit of downloading the decompression application (operating system) was ensuring the compatibility of the type of audio data files being downloaded with a particular compression/decompression scheme. It obviated the problem of downloading a certain type of compressed audio material and the audio reproduction device not being compatible with the that type of audio material. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the disk 10 of Divon et al with a replaceable operating system for compatibility with the audio head unit 14 for efficient reproduction of the audio files.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of Burks, as applied to claim 1 above, further in view of Applicant's Admitted Prior Art (APA). The combination of Divon et al and Burks do not disclose that the audio head unit has a disc changer. Nevertheless, on page 1 of the specification, Applicant admits to the fact that disc changers were commonly included in automobile audio systems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a disc changer in the audio head unit of Divon and Burks. Claim 7 is met. As to claim 8, the Applicant also admits on page 11, lines 29-30 that many automobile stereo head units have a disc changer port in the back of the head unit. Such a statement is an acknowledgment of prior art devices and therefore one of ordinary skill in the art would have provided the audio head unit of the combination with a port.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of Burks further in view of APA further in view of Berhan. The combination of Divon et al, Burks and the Admitted Prior Art does not disclose user replaceable program code programming the audio head unit to communicate with the disc changer. Berhan teaches a system with a removable hard disk drive and a CD changer. Furthermore, Berhan suggested the use of program code (which is always user replaceable) stored on disk cartridge 118 which configures interface circuitry 122 (in the audio head) to communicate with CD changer circuitry 144. It was beneficial to include program code on the disk cartridge 118 in order to ensure it can communicate with the particular CD changer. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to also include program code to program the audio head of the combination of the APA, Divon et al and Burks to communicate with the disc changer for the purpose of communication between the two devices.

Claims 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of Burks further in view of APA further in view of Nicholson et al. The combination of Divon et al, Burks and the APA teach an apparatus comprising a dock, music storage device, audio head unit, hard disk, wherein the audio head unit contains a disc changer. The combination does not state the audio head includes buttons to control the disc changer. Nicholson et al teach an automotive entertainment system comprising an audio head and control panel 10 which has buttons dedicated to control a disc changer (figure 1). See also column 1 line 43 – column 2 line 14. Since it was well known to have control panels, for the purpose of giving an user to ability to control and

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manipulate the audio source, in vehicles at the time of the invention, it would have been obvious to one of ordinary skill in the art to include such a control panel in the combination of Divon, Burks, and the APA. As to claim 11, the combination teaches a radio tuner in Divon. Nicholson et al also teach a radio tuner and inherently there is a switch to switch between the input audio sources (radio tuner, CD changer, tape player). Since it was well known to switch between audio sources, it would have been obvious to one of ordinary skill in the art at the time of invention to switch between common audio sources and the additional input audio source from the hard disk 10, whereby the output from the switch is connected to speakers.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of Burks further in view of Kikinis. The combination of Divon et al and Burks do not explicitly teach a USB port in the computer 16 and dock connected to the USB port. The computer of Divon et al is the music storage device. It was well known at the time of invention that a personal computer would have to have a USB port connected to the dock, since the dock is a peripheral device. Per the teachings of Kikinis, which describes a computer with physical engagement interfaces (which one of ordinary skill in the art would recognize as docks) that have USB ports, it would have been obvious to connect the computer dock of Divon et al to an USB port.

Claims 38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of by Aoki et al. Divon et al teach a system comprising a dock 28 connected to a computer 16 which is a music storage device (see column 5 lines 61-67), an audio head 14 which is connected to vehicle speakers, a removable hard disk

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10 which is removably connected to the dock 28 via link 26 and the audio head unit 14. Divon et al teach that the disk 10 stores audio files downloaded from the computer 16. Thus, Divon et al teach connecting a hard disk to a computing device, transferring audio data files from the computing device to the disk, disconnecting the disk from the computing device and connecting the disk to an automobile head unit. Divon et al do not teach receiving a choice between a disc changer, a radio and the disk drive and playing audio from either of those sources based on the choice. Aoki et al disclose an apparatus for operating instruments for a vehicle comprising selecting via mode selection switch 19 music from disc changer 3, radio 7 or cassette deck 6 and reproducing the music through loudspeaker 29. Cassette deck 6 accepts tape cassettes which are removable hard disks since they save audio data on the magnetic reels. It would have been obvious to one of ordinary skill in the art at the time of invention to use the teachings of Aoki et al in the invention of Divon et al for the purpose of switching between audio sources. As to claim 41, there is disclosed a control panel for the audio head 14 of Divon et al.

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Divon et al in view of Aoki et al further in view of Berhan. The combination of Divon et al and Aoki et al does not disclose communicating with the disc changer 3 based on user replaceable interface program code. Berhan teaches a method of playing music and communicating with the disc changer using interface program code. It would have been obvious to one of ordinary skill in the art at the time of invention to use the teachings of Berhan in the apparatus of Divon et al and Aoki et al to facilitate transmission of audio



from the disc changer to the speaker. All audio systems had to have such program code in order to work with disc changers.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable Divon et al in view of Aoki et al further in view of Burks. The combination of Divon et al and Aoki et al does not disclose the use of a play list, however that feature was well known in the art as evidenced by Burks. The use of play lists afforded the user customization, an advantageous feature. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combination of Divon et al and Aoki et al per the teachings of Burks and include play lists.

***Allowable Subject Matter***

Claims 13, 15, 16, 18, 19, 27, 28, 32, 33, and 35-37 are allowed.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

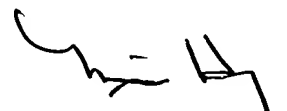
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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